



Product Safety Summary Sheet

DuPont™ Chlorosulfonic Acid

Chemical Identification, Product Identification or Common Name:

CAS number (EC inventory): 7790-94-5

CAS name: Chlorosulfonic Acid

EC Number: 232-234-6

IUPAC name: Sulferochloridic acid

Product Uses and Applications:

This chemical or product is generally used in the following manner:

Chlorosulfonic Acid is used in the production of:

- detergents,
- pharmaceuticals,
- dyes,
- crop protection agents,
- ion exchange resins, plasticizers and others.

Physical Properties of the Chemical or Product:

Chlorosulfonic Acid is a colorless or slightly yellowish corrosive liquid with a pungent odor, a boiling point of 151-152 Deg. C at normal room pressure and a melting point of -80 Deg. C.

Exposure Potential:

Workplace exposure: Due to its physical and chemical properties, chlorosulfonic acid is produced and processed in closed systems and is transported under controlled conditions. Because of these closed systems and controlled conditions, potential exposures to workers are minimized, and

exposures to the environment (air, water) are relatively low. However, workers may potentially be exposed by the inhalation of vapors, aerosols or dermally during the transfer of liquids between vessels.

Workers should follow the recommended safety measures contained within the (Material) Safety Data Sheet ((M)SDS) and on any product packaging. Employees should be trained in the appropriate work processes and safety equipment to limit exposure to chemical substances. Occupational use of this substance is considered to be safe provided the recommended safety measures in the (M)SDS are followed.

Consumer exposure: The substance is used in industrial settings. No relevant consumer exposure is expected.

Environmental exposure: Chlorosulfonic acid hydrolyzes in the presence of water to Hydrchloric Acid and Sulfuric Acid.

Health Information

Note: The information contained in this section may be useful to someone handling the pure undiluted substance such as a manufacturer or transporter. Consumers are not likely to come in contact with the pure substance. For more information on health hazards and recommended protective equipment, please refer to the (M)SDS.

Exposures may affect human health as follows:

| Effect Assessment | Result |
|----------------------------------|--|
| Acute Toxicity | Oral: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Other effects may include: vomiting, diarrhea, internal bleeding, circulatory collapse (symptoms may be delayed). Dermal: considered highly corrosive and causes skin burns. Inhalation: Causes respiratory tract irritation. Inhaled corrosive substances can lead to a toxic edema of the lungs, fluid in the lungs (pulmonary edema) with cough, wheezing, abnormal lung sounds, possibly progressing to severe shortness of breath and bluish discoloration of the skin (symptoms might be delayed). |
| Irritation | Causes skin burns. Extremely corrosive and destructive to tissue. Causes eye burns; may cause blindness. |
| Sensitization | Based on available data & pH, not tested. |
| Mutagenicity | No available data. |
| Carcinogenicity | No available data. |
| Toxicity after repeated exposure | No available data. |
| Toxicity for reproduction | No available data. |

Environmental Information

Note: The information contained in this section is intended to provide brief and general information of this substance's environmental impact. The results in the table below refer to testing performed with the non formulated, undiluted substance. The data does not replace the data given in the (M)SDS. For more information and recommended protective measures please refer to the (M)SDS.

| Effect Assessment | Result |
|-------------------------------|---|
| Aquatic Toxicity | In the presence of water, chlorosulfuric acid will be immediately hydrolyzed. If chlorosulfuric acid reaches an aquatic ecosystem the decrease in the pH due to the hydrolysis products is influenced by the buffer capacity of the specific ecosystem. |
| Persistence and degradability | As inorganic substance, chlorosulfuric acid does not undergo biodegradation. If it is released into water or moist soil it will be hydrolyzed immediately. Not persistent. |
| Bioaccumulation potential | Not expected to bioaccumulate. |

Risk Management

Workplace Management:

Risk management measures for industrial site use include containment through engineering controls and the use of personal protective equipment (PPE) as appropriate. Always refer to the (Material) Safety Data Sheet ((M)SDS) for guidance on the appropriate personal protective equipment to be used and on the safe handling of this material.

Consumer Risk Management:

Because chlorosulfonic acid is used in industrial settings only, consumer exposure is not expected.

Regulatory Information:

Always refer to the (Material) Safety Data Sheet ((M)SDS) for guidance on regulatory restrictions that may govern the manufacture, sale, transportation, use and/or disposal of this chemical or product. Regulations may vary by region, country, state, county, city, or local government.

First Aid Information:

For all First Aid or Emergency information, consult the (Material) Safety Data Sheet ((M)SDS).

Information Sources:

Data is compiled from a variety of sources, including publicly available documents, internal data and other sources such as, but not limited to, Chemical Safety Reports and (Material) Safety Data Sheets ((M)SDS).

Contact Information:

E.I. du Pont de Nemours and Company, Wilmington, DE 19880

USA Customer Service:

Toll Free: 1-800-774-1000

Global: 1-843-335-5912

Hours: 8 a.m. - 7 p.m. EST

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